

IMPROVED LED LAMPS

ABSTRACT

A high power LED lamp has a GaN chip placed over an AlGaInP chip. A reflector is placed between the two chips. Each of the chips has trenches diverting light for output. The chip pair can be arranged to produce white light having a spectral distribution in the red to blue region that is close to that of daylight. Also, the chip pair can be used to provide an RGB lamp or a red-amber-green traffic lamp. The active regions of both chips can be less than 50 microns away from a heat sink:-